

**CLAIMS**

1. Method for the diagnosis of infection by parasites of the *Schistosoma* genus by the detection, in biological samples, of the specific region of the DNA of the *Schistosoma* genus described in ID SEQ n.1, comprising the stages of:

- (a) collection of the sample to be examined;
- (b) extraction of the DNA of *Schistosoma sp.* from the sample obtained in (a);
- (c) amplification by PCR of a specific region of the DNA of *Schistosoma sp.* extracted in stage (b) with specific primers constructed from the original sequence of *S. mansoni* described in ID SEQ n.1.
- (d) separation of the products of the amplification of stage (c) by electrophoresis, followed by detection by appropriate technique.

2. Method according to Claim 1 wherein the primers used in stage (c) consist of the sequences ID SEQ n.2 and ID SEQ n.3 or functionally equivalent sequences capable of amplifying the specific region of the DNA of *Schistosoma sp..*

3. Method according to Claim 1 wherein the amplified products of stage (d) are separated by electrophoresis in polyacrylamide gel and detected by colouring with silver salts or other detection systems.

4. Oligonucleotide primer comprising the sequence ID SEQ n.2 or ID SEQ n.3 or functionally equivalent sequences thereof.

5. Primer of claim 4 comprising the sequence ID SEQ n.2 or ID SEQ n.3.

6. A kit to be used for the diagnosis of infection by *Schistosoma sp.* comprising specific primers constructed from the original sequence of *S. mansoni* described in ID SEQ n.1 and all the necessary reagents to carry out a PCR.

7. A kit according to Claim 6 wherein the specific primers consist of ID SEQ n.2 and ID SEQ n.3 or functionally equivalent sequences capable of amplifying the specific region of the DNA of *Schistosoma sp.*.

8. A kit according to Claim 7 wherein a protocol and an instruction manual for the user is furnished.